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NASPAG Position Statement on COVID-19 Vaccines and Gynecologic Concerns in Adolescents and Young Adults



This NASPAG Position Statement was created by Hina Talib, MD, Elise D. Berlan, MD, and Nichole Tyson, MD, in collaboration with NASPAG Advocacy Committee members: Elizabeth Alderman, MD, Rachel Casey, MD, Martin Fisher, MD, Shaketha Gray, MD, Megan Harrison, MD, Kim Hoover, MD, Susan Kaufman, DO, Kate McCracken, MD, Diana Robillard, MD, Mary Romano, MD, Julie Strickland, MD, Whitney Wellenstein, MD, and Noor Zwayne, MD. It was approved by the NASPAG Board of Directors. Monday May 17th, 2021.

With COVID-19 vaccine eligibility expanding into the adolescent age group, many teens, families, and health care providers have thoughtful questions about the vaccine that are particular to this stage of development. Importantly, parents who accepted and even received the vaccine for themselves, have taken pause when approaching the vaccine for adolescents in their care citing specific concerns related to vaccine interactions with puberty, menstrual cycles, birth control, and fertility. The North American Society for Pediatric and Adolescent Gynecology (NASPAG) offers guidance herein, on the basis of available data as well as expert opinion, for those who might be seeking gynecologic information related to COVID-19 vaccine use in adolescents and young adults. COVID-19 vaccines that are approved by the rigorous Federal Drug Administration Emergency Use Authorization (EUA) and recommended by subsequent Centers for Disease Control and Prevention Advisory Committee on Immunization Practices as well as Health Canada and the National Advisory Committee on Immunization have been determined to be safe and effective, and NASPAG supports their use in approved and eligible populations, which currently includes adolescents and young adults.¹⁻³

NASPAG advocates for the use of COVID-19 vaccines for children, when approved, and adolescents who are eligible now to protect them from COVID-19 infection and its sequelae, as well as to reduce the spread of the virus in the community and to vulnerable people. The American Academy of Pediatrics has reported that since the start of the pandemic, and as of April 2021, 3.85 million children have been infected with COVID-19, 303 have died, and children are now making up a greater proportion of all COVID-19 infections.⁴ Beyond the physical toll including hospitalizations, unpredictable courses with multisystem inflammatory syndrome in children and long COVID-19 symptoms, the emotional, social, and educational effects are far-reaching.

Updates on Authorization of COVID-19 Vaccines in Teens in North America

- As of December 2020, the Pfizer-BioNTech COVID-19 vaccine is authorized for use in adolescents and young

adults aged 16 years and older and the Moderna vaccine for use in young adults aged 18 years and older. As of February 2021, the Janssen COVID-19 vaccine was authorized for use in young adults aged 18 years and older.

- In May 2021, Canada was the first country to authorize use of the Pfizer-BioNTech vaccine in adolescents aged 12-15 years.
- In the United States, the Food and Drug Administration granted EUA for the Pfizer vaccine in adolescents aged 12-15 years on May 4, 2021. On May 12, the Centers for Disease Control and Prevention also endorsed the Pfizer vaccine for 12- to 15-year-old teens.

Gynecologic Concerns in Adolescents

- COVID-19 vaccines can be used during puberty. Currently there are several routine recommended vaccines during adolescence including those directed against tetanus, diphtheria, pertussis, human papillomavirus, and bacterial meningitis. There is no plausible biological mechanism or evidence to support concerns that puberty or growth would be altered by COVID-19 vaccines.
- Anecdotal and media reports of irregular menstrual cycles, including skipped periods, prolonged periods, and spotting after COVID-19 vaccines in adult menstruators have been shared, and similar changes in menstrual cycles have been shared after COVID-19 infection. This is not surprising because infections, immune reactions, and fevers are understood to cause short-term, self-limited changes in cycles. However, further studies are needed to verify and characterize these changes in relationship to COVID-19 vaccines. In teens, it is also important to note the natural variability in cycles due to hypothalamic-pituitary-ovary axis maturation and the large range of normal menstrual cycles in the first few years after the onset of menses.⁵ Stress and weight changes, which have also occurred in many adolescents during the pandemic, can themselves cause these changes in menstrual cycles. Regardless of vaccine use, youth should be encouraged to track their menstrual cycles to become familiar with their own menstrual function and to discuss any concerns about their

- cycles with their gynecologists, pediatricians, or adolescent medicine physicians or other health care providers.
- Adolescents and young adults who are using hormonal birth control may continue to do so when considering any of the approved COVID-19 vaccines. In April 2021, the Food and Drug Administration added a warning to the Janssen COVID vaccine's EUA because of the extremely rare occurrence of thrombosis with thrombocytopenia syndrome; approximately 7 of every million doses of Janssen COVID-19 vaccine administered to women aged 18–49 years.⁶ An association with COVID-19 vaccine-related thrombosis with thrombocytopenia syndrome and hormonal contraceptives has not been found. Accordingly, continuation of hormonal contraceptive use and COVID-19 vaccination is recommended for eligible young persons.
 - Although teenage pregnancy rates have declined over the past few decades, the United States has a high adolescent pregnancy rate (57 per 1000 of 15- to 19-year-old teens) compared with other developed countries.⁷ Pregnancy increases the risks of significant complications from COVID-19 infection. Many US adolescents are at risk for COVID-19 complications of pregnancy, which are preventable by COVID-19 vaccination. The American College of Obstetricians and Gynecologists and the Society of Obstetricians and Gynaecologists of Canada have endorsed vaccinating women against COVID-19 during pregnancy.^{6,8}
 - Current or future fertility is unlikely to be affected by COVID-19 vaccines in teens because there is no scientific basis for any interaction. The vaccines do not alter a person's DNA or that of their offspring. Several professional societies, including the American College of Obstetricians and Gynecologists, the American Society for Reproductive Medicine, and the Society for Maternal-Fetal Medicine, have issued a joint statement sharing that there is no evidence that the vaccine is associated with declines in fertility.⁹ The Society of Obstetricians and Gynaecologists of Canada has issued a similar statement.⁸

Summary Guidance

1. All children, adolescents, and young adults who are vaccine-eligible should be offered their choice of available and approved COVID-19 vaccines.
2. There is no reason to delay the COVID 19 vaccine for an adolescent because of their stage of puberty.
3. Irregular periods are a common part of adolescence and are part of normal pubertal development. Menstrual cycles of adolescents have a wide normal range and if the vaccine has an effect on cycles, it is likely short-term and self-limited.
4. Adolescents and young adults who are sexually active and/or using hormonal or nonhormonal contraceptive methods should be offered the COVID-19 vaccine.
5. Pregnant adolescents should be offered the COVID-19 vaccine because they are a group at high risk of COVID complications. A pregnancy test is not indicated before vaccine administration.
6. There are no scientific data that demonstrate a link between COVID-19 vaccine and fertility.

The North American Society for Pediatric and Adolescent Gynecology (NASPAG) Headquarters, 19 Mantua Rd, Mt Royal, NJ 08061; Phone (856) 423-3064; Fax (856) 423-3420; E-mail address: hq@naspag.org

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